ANALYSIS OF FACTORS AFFECTING THE USE OF CASHLESS MOBILE PAYMENT IN MILLENIAL GENERATIONS OF BATAM CITY

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Abstract

The purpose of this study is to determine the factors or influences that lead to the use of cashless mobile payments on the Batam millennial generation. The payment transaction media has developed rapidly and is increasingly leaning towards a cashless basis. The number of electronic-based payment media provided is expected to be able to create payment transactions that are practical, efficient, safe and encourage the creation of a Less Cash Society (LCS). When compared to Indonesia with other ASEAN countries, the level of use of electronic-based payments in the community is still low. Generation Y or the Millennial generation (15 to 39 years) in 2017 showed a figure of 40.29% or as many as 105,520,300 individuals from 261,890,900 Indonesians considered to have the potential to increase the use of electronic-based payments and encourage public awareness of LCS. The intention to use cashless mobile payments is the dependent variable. Attitudes, behavioral beliefs, financial costs, security and social influence act as independent variables for this study. Determination of the research object was carried out by purposive sampling method, namely the millennial generation (15 to 39 years) in Batam. Research data collection is based on the questionnaire method, namely electronic and online questionnaires with 230 collected data. The research data were analyzed through multiple regression analysis using Statistical Packages for Social Sciences (SPSS). The results obtained indicate that the variables of attitude, security and social influence have a significant positive effect on the intention to use cashless mobile payment, while the variables of behavioral beliefs and financial costs do not have a significant effect on the intention to use cashless mobile payments.

Keywords: Cashless Mobile Payment, Millennials, Batam

Introduction

The digitization of technology had a lot of influence on people's lives. Effectiveness in the process of buying, selling, marketing products or services, as well as payment transactions made in the community. Trading activities have also been through electronic commerce (e-commerce). This perceived convenience makes people want to continue to carry out economic activities, including the people in Batam.

The number of economic activities in the community helps in the process of economic development in Indonesia. It can be said that the community plays an active role in the process of economic development. According to Sukirno (2010), the expansion of a market in the economy will make the economic development process run rapidly due to developments in economic specialization. Expansion in a market is usually the result of population growth, and specialization in an economy will boost labor productivity and increase technology digitization. The media for making payment transactions has also experienced very rapid development. In the beginning, people were familiar with the barter system between goods. Along with the times, a unit that has a payment value has begun to be recognized, namely money (currency) and continues to experience developments towards electronic-based payments. Bank Indonesia (BI) took the initiative and collaborated with the government through the launching of the "National Non-Cash Movement (GNNT)" which was held on August 14, 2014. This declaration aims to raise awareness among Indonesians to be accustomed to using non-cash payments which can encourage and create less cash. society because it has far better practicality, efficiency, and security (Bank Indonesia, 2014).

According to the population projection results by the Badan Pusat Statistik, Indonesia's population in 2017 was 261,890,900 people with a population of productive age (15 to 59 years) reaching 167,937,300 people. The age group that dominates in the population of productive age is 15 to 39 years, as many as 105,520,300 people from the total population of Indonesia. This means that around 40.29% of Indonesia's population is dominated by generation Y or the millennial generation (Badan Pusat Statistik, 2018). The number of residents in Batam City in 2017 reached 1,283,196 people with a population of productive age (15 to 59 years) of 865,190 people. The age group that dominates the population of Batam City who are productive aged 15 to 39 years or with a total of 676,627 people from the total population in Batam City. This means that around 52.73% of the population in Batam City is dominated by generation Y or the millennial generation (Badan Pusat Statistik, 2018).

The presence of the millennial generation has the potential to increase the use of electronic-based payments in the community and encourage the awareness of the Indonesian people, including people in Batam City towards Less Cash Society (LCS). Born and developed in the digital era and online platforms, it has a big influence on the millennial generation. The millennial generation has its own characteristics in attitude, behavior, and the way they process information that comes from their environment (social influence)

effectively and efficiently. In the midst of the incessant "National Non-Cash Movement (GNNT)" campaign carried out by the government and the large number of electronic-based payment media provided, as well as the population of Indonesia which is dominated by the millennial generation, it does not make the Indonesian people, including the people in Batam City, directly influenced to make transactions electronic based payment. According to G4S Global Cash Solutions (2018), cash payment methods are still used in Indonesia, reaching 50% to 55%. The use of cash payments in Indonesia from 2012 to 2016 by measuring the ratio of Currency in Circulation (CIC) to Gross Domestic Product (GDP) grew by 53.1% or reached Rp 528 trillion. As well as the total number of cash withdrawals via ATMs in the same period grew by 65.5% or reached Rp 2.35 trillion.

Lau, Lam, Cheung, & Leung (2019) conducted a study to investigate consumer intentions to use mobile payments at convenience stores in Hong Kong. Intention to use mobile payment is used as the dependent variable with the independent variable fear obsolescence, subjective norm, perceived usefulness, perceived ease of use, perceived compatibility, and perceived security. This research was conducted through a questionnaire survey by distributing questionnaires to 175 people in Hong Kong who had participated in mobile payments for 6 months. The questionnaire consists of three parts, where the first part examines the habits of the responders in using mobile payments. The second part reviews respondents' perceptions and behaviors in using mobile payments and the last section contains demographic information on responders including gender, age, education level, occupation, and monthly income. The number of questionnaires collected and valid were 150 questionnaires with about 50% female answerers or as many as 75 and about 50% male answerers or as many as 75. Answerers consisted of the age group under 18 years to 61 years and over. The dominating age group was 18 to 30 years, with a total of about 66% or as many as 99. Based on the type of education, respondents with undergraduate education dominated with 58.7% or as many as 88. Based on occupation, respondents with student status dominated with 28.7% or as much as 43. Based on monthly income, respondents with an income of $ 10,000 to $ 19,999 dominated with a total of 36.7% or as much as 55. This study used multiple regression analysis to analyze data through the Statistical Package for The Social Sciences (SPSS) application. and the Technology Acceptance Model (TAM) which serves as a model.

Wong & Mo (2019) conducted a study to investigate consumer intentions in using mobile payment services in Hong Kong. This study makes the intention to use mobile payment as the dependent variable with the independent variables being perceived risk, perceived security, and perceived ease of use, perceived trust, and perceived usefulness. Online surveys and face-to-face surveys were used to collect research data. The number of respondents collected was 121 with 60 male and 61 female answerers. This study used the Statistical Package for The Social Sciences (SPSS) application to analyze the research data.

Teng, Ling, & Seng (2018) conducted a study to see the factors that influence customer intention to use mobile payment services in Nanjing, China. Intention to use which acts as a dependent variable with independent variables including attitude, perceived risks, subjective norms and perceived usefulness in research. This study distributed 700 questionnaires using Self-Administered Questionnaire (SAQ) randomly to customers who use smartphones in public places in Nanjing, China. The number of completed questionnaires was 612 questionnaires, with 348 female answerers and 264 male answerers. Modifications of Theory of Reason Action (TRA) and Technology Acceptance Model (TAM) were used as models. Multiple Regressions Analysis, Descriptive Analysis, and Exploratory Factor Analysis are used to achieve the objectives of this study.

Kaewratsameekul (2018) found the causes of behavioral intention in utilizing contactless mobile payments for fast transit passengers in Bangkok, Thailand. This study uses behavioral intention-free mobile payment which is used as the dependent variable with the independent variable personal innovativeness, social influence, perceived ease of use, perceived usefulness, perceived compatibility, perceived trustworthiness, perceived financial cost, and perceived security risk. Collecting research data by distributing questionnaires via e-mail, social media, and company website visits around rapid transit stations. There were 442 respondents responded to the questionnaire, but there were only 342 valid questionnaires. Respondents included 142 male responders and 200 female responders who have experience in purchasing with contactless mobile payments during rapid transit in Bangkok, Thailand. Structural Equation Model (SEM) is used to analyze data in research.

Abrahao, Moriguchi, & Andrade (2016) evaluated the intention to adopt mobile payment services in the future from the perspective of today's mobile phone consumers in Brazil. Behavioral intention of adoption of mobile payments is used as the dependent variable with the independent variable performance expectation, perceived cost, effort expectation, social influence, and perceived risk. The research was carried out through a survey to customers of telecommunication companies operating in.

Research conducted by Teng et al., (2018), Ayudya & Wibowo (2018), Bhuvana & Vasantha (2017), Cabanillaset al., (2017), and Van Deventer et al., (2017) concluded that attitude has a significant influence significantly positive on the intention to use mobile payment. The attitude of a user to a certain extent determines his tendency to use new technology. When the use of mobile payments can save time and match the lifestyle of the user, then the user's attitude is believed to play an important role in the use of mobile payments.

Research conducted by Lau et al., (2019), Teng et al., (2018), Kaewratsameekul (2018), Saji & Paul (2018), Johnson et al., (2017), PC (2016), and Moroni et al., (2015) concluded that behavioral beliefs have a significant positive influence on intention to use mobile payments. Behavioral beliefs include perceived usefulness and perceived ease of use. Users will adopt new payment methods if they are followed by added value. Users find mobile payment to be a useful and more convenient tool than traditional payment methods due to portability. The speed of payment in transaction times and the ease of operating the features in it.

Research conducted by Kaewratsameekul (2018) and Busu et al., (2018) concluded that financial costs have a significant negative effect on the intention to use mobile payments. Financial cost refers to additional fees charged to users which include subscription and transaction fees. When costs are involved in the payment process, it will have an impact on the higher costs of the purchase, leading to lower behavioral intention to use contacless mobile payments.

Research conducted by Singh & Srivastava (2018), Cabanillas et al., (2017), Cobanoglu et al., (2015), and Musa et al., (2015) concluded that security has a significant positive effect on intention to use mobile payments. The higher the perceived security, the higher the tendency to accept examples of payment methods in the future. Users expect banks to strengthen their security mechanisms so that they have security in transactions and protection of privacy, especially security in wireless networks.

Research conducted by Kaewratsameekul (2018), Gharaibeh (2018), Mun et al., (2017), Tan & Lau (2016), and Musa et al., (2015) concluded that social influence has a significant positive effect on intention to use. mobile payment. A high level of social influence leads to a high level of use. Users will consider the opinions of people who are important to them or who surround them such as friends, family members, relatives, and relations. Based on the background and gaps from previous studies, the research model and hypothesis proposed in this study are.

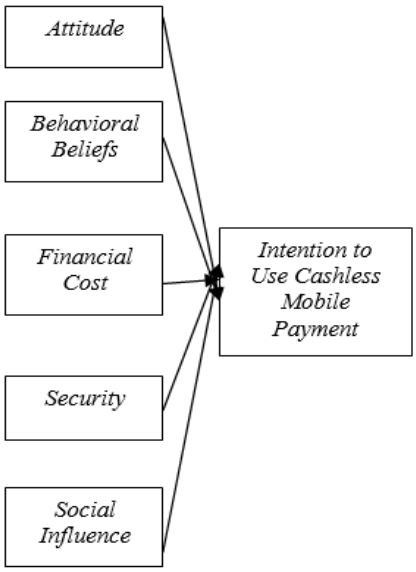

Figure 1. Conceptual Framework

H1 : Attitude has a significant positive effect on the use of cashless mobile payments in the millennial generation in Batam.
H2 : Behavioral beliefs have a significant positive effect on the use of cashless mobile payments in the millennial generation in Batam.
H3 : Financial costs have a significant negative effect on the use of cashless mobile payments for the millennial generation in Batam.
H4 : Security has a significant positive effect on the use of cashless mobile payments in the millennial generation in Batam.
H5 : Social influence has a significant positive effect on the use of cashless mobile payments for the millennial generation in Batam.

Research Method

Researchers used purposive sampling method, in which the research sample was not taken randomly but was based on aspects of consideration that were in accordance with the research objectives. The use of the purposive sampling method in this study was carried out by selecting the millennial generation (15 to 39 years old) in Batam City, which are scattered in Rear Padang District, Galang District, Bengkong District, Bulang District, Sagulung District, Nongsa District, Batu Aji District, Batu District. Ampar, Sekupang District, Lubuk Baja District, Batam Kota District, and Sungai Beduk District as research objects.

The research sample was taken by using the ratio of the minimum ratio for observations to the parameters in the variable, namely 5: 1. So that the minimum sample collection that must be done in the study so that it can represent the population of the millennial generation, which is 215 samples. The minimum sample acquisition is based on the number of statement items representing the variables in the questionnaire, namely 43 statements multiplied by the ratio ratio value, namely 5 (Hair, Black, Babin, & Anderson, 2014). To anticipate undesirable things such as invalid data, lack of data, and so on, an addition was made to the number of respondents so that the research sample consisted of 230 samples.

Multiple regression analysis is used as a research method for analyzing research data. According to Hair et al., (2014), the multiple regression analysis method is an appropriate method of analysis when the problem in research involves a single metric dependent variable which is considered to be associated with two or more independent variables. Primary data processing was collected in this study using the Statistical Package for The Social Sciences (SPSS) software version 21. The goal is to make it easier for researchers to describe the effect of several independent variables on the dependent variable.

Result and Discusssion

Responders who live in Batam Kota Subdistrict dominate the research with the number of 81 or with a percentage rate of 35.5%. Female answerers dominated the study with a total of 127 or a percentage rate of 55.7%. The respondents aged 20 to 24 years dominated the study with 153 or a percentage rate of 67.1%. The respondents with the latest education level of Senior High School (SMA) dominated the research with the number of 147 or with a percentage level of 64.5%. Students with the status of students dominate the research with a total of 118 or with a percentage level of 51.8%. Respondents whose monthly income ranges from IDR 3,000,001 to IDR 5,000,000 dominated the research with 104 or with a percentage level of 45.6 %. The number of respondents who had marital status, namely not married, dominated the research with a number of 195 or a percentage rate of 85.5%. Also, respondents who use mobile banking services dominate the research with a total of 90 or a percentage rate of 39.5%.

The results of the validity test on each variable that show valid results with a factor load value or factor loading ≥0.7 are 37 statements consisting of 5 statements about attitude variables (A1, A2, A3, A4, and A5), 9 statements regarding behavioral variables beliefs (BB1, BB2, BB3, BB5, BB6, BB7, BB8, BB9, and BB10), 7 statements regarding financial cost variables (FC1, FC2, FC3, FC4, FC5, FC6, and FC7), 5 statements regarding security variables (S4, S5, S6, S7, and S8), 8 statements regarding social influence variables (SC1, SC2, SC3, SC4, SC5, SC6, SC7, and SC8), and 3 statements regarding ITUCMP variables (ITUCMP2, ITUCMP , 3, ITUCMP4). Meanwhile, 6 statements (BB4, S1, S2, S3, ITUCMP5) indicate invalid results and the data must be removed. The reliability test results show the Cronbach's alpha value of each variable studied is ≥ 0.7, where the attitude variable is 0.912, the behavioral beliefs variable is 0.952, the financial cost variable is 0.916, the security variable is 0.890, the social influence variable is 0.925, and the intention to use mobile payment variable , 824. The conclusion that can be drawn is that each variable indicates a reliable result.

The empirical normality test results through the Kolmogorov Smirnov test showed a value of 0.642 and an Asymp value. Sig (2-tailed) or Asymptotic Significance which indicates a value of ≥0.05, namely 0.804. The conclusion that can be drawn is that the residuals spread normally so that the assumption of normality has been fulfilled. The multicollinearity test results show Variance Inflation Factor (VIF) and Tolerance on each independent variable, where the attitude variable indicates the VIF value of 2.978 and Tolerance of 0.336, the behavioral beliefs variable indicates the VIF value of 2.835 and Tolerance of 0.353, the financial cost variable indicates the value of VIF1.390 and Tolerance. 0.719, the security variable indicates a VIF value of 1.827 and a tolerance of 0.547, and the social influence variable indicates a VIF value of 1.597 and a tolerance of 0.626. It can be concluded that all independent variables indicate a Variance Inflation Factor (VIF) <10 and Tolerance> 0.1 so that they are free from multicollinearity (non-multicollinearity). The results of empirical heteroscedasticity testing through the Glejser test showed a significant value in each variable, where the attitude variable was 0.404, the behavioral beliefs variable was 0.415, the financial cost variable was 0.437, the security variable was 0.831, and the social influence variable was 0.390. the overall independent variable does not have a significant effect on the residual where the significant value is ≥0.05 so that the regression model does not contain an element of heteroscedasticity and the assumption of homoscedasticity is fulfilled.

The results of the t test are observed through the coefficients table which shows the Beta value and significant value for each variable, where the attitude variable indicates a Beta value of 0.203 with a significance value of 0.030, the behavioral beliefs variable indicates the Beta value of 0.046 with a significance value of 0.615, the financial cost variable indicates the value. Beta is 0.007 with a significance value of 0.906, the security variable indicates a Beta value of 0.296 with a significance value of 0.000, and the social influence variable indicates a Beta value of 0.199 with a significance value of 0.004. The conclusion that can be drawn is that the variables attitude, security, and social influence have a significant influence on the intention to use cashless mobile payments, where the significance value is ≤0.05. For behavioral beliefs and financial costs variables do not have a significant effect on intention to use cashless mobile payments because the significance value is ≥0.05.

Conclusion

A person's attitude can develop over time because it may be influenced by several external factors, but usually a person's attitude towards an object is always consistent. The attitude of a user who believes that the use of mobile payment services can save time, fit your lifestyle, is compatible with what you want, is comfortable, and allows you to complete work faster can have a fairly large and consistent impact on the use of mobile payments. Behavioral beliefs that refer to the beliefs felt by a person, where these beliefs are obtained after a person interacts with an object. This belief can be in the form of benefits (perceived usefulness) and ease (perceived ease of use) received after using cashless mobile payments. However, when a user considers that mobile payment services do not provide added value more than other payment methods and the character of users who already understand and are familiar with technology will assume behavioral beliefs, not the main determinants for using mobile payment services.

The H3 assumption is rejected because of financial costs which refer to a person's belief that when using cashless mobile payments, additional costs will be received which include transaction fees, admin fees, and so on. However, when a user with a demographic profile, namely stable monthly income and adequate financial resources, does not really care about the fees they think are still affordable when using cashless mobile payments. Respondents in this study were dominated by users who had a stable and adequate monthly income, namely Rp. 3,000,001 to Rp. 5,000,000, so they didn't really care about the fees charged. Security refers to the sense of security that a person will receive before and after using cashless mobile payment. The higher the sense of security that users feel will show a high tendency to accept new payment methods such as cashless mobile payments. Users really expect banks to strengthen their security mechanisms so that they have security in conducting transactions and protection of privacy, especially security in wireless networks.

Social influence refers to external factors that will give a person an impact to reconsider the interaction with an object. A high level of social influence leads to a high level of use. Users will consider the opinions of people who are important to them or who surround them such as friends, family members, relatives and relatives who have used cashless mobile payment to serve as a reference. Millennials who understand mass media and technology well will use it as a means to collect cashless mobile payment initial user testimonials before they try it themselves to ensure there is no critical impact on them.

There were limitations during carrying out the research, namely, the lack of available time and respondents who were the objects of research who were more dominated by the 20-24 year age group so that they still could not reflect the behavior of using cashless mobile payments in millennial generations aged 15-39 years in Batam City. As well as the lack of respondent support for research conducted by researchers, in which the distributed questionnaire is filled in arbitrarily and does not reflect the respondent. The recommendations that the researchers gave in the continuation of this study were to reach all research objects, namely the millennial generation aged 15 to 39 years so that they could reflect the behavior of using cashless mobile payments in the millennial generation and add independent variables including performance expectancy, trust, facilitating conditions, subjective norms, financial risk, and effort expectancy that may have an influence on the behavior of using cashless mobile payments in the millennial generation.

References

4GS Global Cash Solutions. (2018). World Cash Report 2018. Retrieved from https://cashessentials.org/app/uploads/2018/07/2018-world-cash-report.pdf

A. Alshare, K., & A. Mousa, A. (2014). The Moderating Effect of Espoused Cultural Dimensions on Consumer's Intention to Use Mobile Payment Devices. Proceedings of the 35th International Conference on Information Systems, 1–15.

Abrahao, R. de S., Moriguchi, S. N., & Andrade, D. F. (2016). Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT). RAI Revista de Administração e Inovação, 13(3), 221–230.

Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. International Journal of Information Management, 37(3), 99–110.

Ayudya, A. C., & Wibowo, A. (2018). The Intention to Use E-Money using Theory of Planned Behavior and Locus of Control. Jurnal Keuangan Dan Perbankan, 22(2), 335–349.

Badan Pusat Statistik. (2018a). Laporan Bulanan Data Sosial Ekonomi (September 2018) (S. P. dan K. Statistik, Ed.). Badan Pusat Statistik.

Badan Pusat Statistik. (2018b). Statistik Indonesia 2018 (Subdirektorat Publikasi dan Kompilasi Statistik, Ed.). Badan Pusat Statistik.

Badan Pusat Statistik Kota Batam. (2018). Kota Batam Dalam Angka 2018 (S. I. P. dan D. Statistik, Ed.). Badan Pusat Statistik Kota Batam

Balachandran, D., & Han Tan, G. W. (2015). Regression modelling of predicting NFC mobile payment adoption in Malaysia. International Journal of Modelling in Operations Management, 5(2), 100–116.

Bank Indonesia, D. K. (2014). Bank Indonesia Mencanangkan Gerakan Nasional Non Tunai. Retrieved from Bank Indonesia website: https://www.bi.go.id/id/ruang-media/siaran-pers/pages/sp_165814.aspx

Bhuvana, M., & Vasantha, S. (2017). Mediating effect of demonetization of currency notes towards adopting cashless payment system. International Journal of Civil Engineering and Technology, 8(6), 699–707.

Boonsiritomachai, W., & Pitchayadejanant, K. (2017). Determinants affecting mobile banking adoption by generation Y based on the Unified Theory of Acceptance and Use of Technology Model modified by the Technology Acceptance Model concept. Kasetsart Journal of Social Sciences, xxx, 1–10.

Busu, S., Karim, N. A., & Haron, H. (2018). Factors of adoption intention for near field communication mobile payment. Indonesian Journal of Electrical Engineering and Computer Science, 11(1), 98–104.

Cabanillas, F. L.-, de Luna, I. R., & Montoro-Ríosa, F. (2017). Intention to use new mobile payment systems: A comparative analysis of SMS and NFC payments. Economic Research-Ekonomska Istrazivanja, 30(1), 892–910.

Cobanoglu, C., Yang, W., Shatskikh, A., & Agarwal, A. (2015). Are Consumers Ready for Mobile Payment ? An Examination of Consumer Acceptance of Mobile Payment Technology in Restaurant Industry Are Consumers Ready for Mobile Payment ? An Examination of. Hospitality Review, 31(4), 1–19

Creswell, J. W. (2014). Research Design Qualitative, Quantitative, and Mixed Methods Approaches (4th ed.; V. Knight, Ed.). SAGE Publications, Inc.

Daştan, I., & Gürler, C. (2016). Factors Affecting the Adoption of Mobile Payment Systems: An Empirical Analysis. Emerging Markets Journal, 6(1), 1–16. https://doi.org/10.5195/emaj.2016.92

Deventer, M. van, Klerk, N. de, & Dye, A. B. (2017). Antecedents of attitudes towards and usage behavior of mobile banking amongst Generation Y students. Banks and Bank Systems, 12(2), 78–90.

Duane, A., O'Reilly, P., & Andreev, P. (2014). Realising M-Payments: Modelling consumers' willingness to M-pay using Smart Phones. Behaviour and Information Technology, 33(4), 318–334.

Etikan, I., & Bala, K. (2017). Sampling and Sampling Methods. Biometrics & Biostatistics International Journal, 5(6), 5–7.

Gharaibeh, M. K., & Arshad, M. R. M. (2018). Determinants of Intetnion to Use Mobile Banking in the North of Jordan: Extending UTAUT2 with Mass Media and Trust. Journal of Engineering and Applied Sciences, 13(8), 2023–2033.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Pearson New International Edition: Multivariat Data Analysis. In Exploratory Data Analysis in Business and Economics (Seventh). United States of America: Pearson Education Limited.

Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S. (2014). Mobile-banking adoption by Iranian bank clients. Telematics and Informatics, 31(1), 62–78.

Humbani, M., & Wiese, M. (2018). A Cashless Society for All: Determining Consumers' Readiness to Adopt Mobile Payment Services. Journal of African Business, 19(3), 409–429.

Hussain, M., Mollik, A. T., Johns, R., & Rahman, M. S. (2018). M-payment adoption for bottom of pyramid segment: an empirical investigation. International Journal of Bank Marketing, 37(1), 362–381.

Johnson, V. L., Kiser, A., Washington, R., & Torres, R. (2017). Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services. Computers in Human Behavior, 79, 111–122.

Kaewratsameekul, W. (2018). An examination of behavioral intention to use contactless mobile payment : Rapid transit system in Thailand. Science, Engineering and Health Studies, 12(2), 85–101.

Kim, Y., Park, Y.-J., Choi, J., & Yeon, J. (2016). The Adoption of Mobile Payment Services for "Fintech" International Journal of Applied Engineering Research, 11(2), 1058–1061.

Lau, M. M., Lam, A. Y. C., Cheung, R., & Leung, T. F. (2019). Understanding determinants of customer behavioral intention in using mobile payment at convenience stores. Proceedings of the 10th International Conference on E-Education, E-Business, E-Management and E-Learning - IC4E '19, 357–362.

McClave, J., & Sincich, T. (2017). Statistic. In C. Hoag (Ed.), Pearson (Thirteenth). Retrieved from www.pearsonhighered.com

Moroni, A., Talamo, M., & Dimitri, A. (2015). Adoption factors of NFC Mobile Proximity Payments in Italy. MobileHCI '15 Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services, 393–399.

Mun, Y. P., Khalid, H., & Nadarajah, D. (2017). Millennials' Perception on Mobile Payment Services in Malaysia. Procedia Computer Science, 124, 397–404.

Musa, A., Khan, H. U., & AlShare, K. A. (2015). Factors influence consumers' adoption of mobile payment devices in Qatar. International Journal of Mobile Communications, 13(6), 670.

Neuman, L. (2014). Social Research Methods; Qualitative and Quantitative Approaches Seventh Edition. In Pearson.

Nguyen, T. N., Cao, T. K., Dang, P. L., & Nguyen, H. A. (2016). Predicting Consumer Intention to Use Mobile Payment Services: Empirical Evidence from Vietnam. International Journal of Marketing Studies, 8(1), 117.

P C, L. (2016). Design and Security impact on consumers' intention to use single platform E-payment. Interdisciplinary Information Sciences, 22(1), 111–122.

Pham, T. T. T., & Ho, J. C. (2015). The effects of product-related, personal-related factors and attractiveness of alternatives on consumer adoption of NFC-based mobile payments. Technology in Society, 43, 159–172.

Phonthanukitithaworn, Chanchai Sellitto, C., & Fong, M. W. L. (2016). An investigation of mobile payment (m-payment) services in Thailand. Asia-Pacific Journal of Business Administration, 5(2).

Qasim, H., & Abu-Shanab, E. (2016). Drivers of mobile payment acceptance: The impact of network externalities. Information Systems Frontiers, 18(5), 1021–1034.

Ruangkanjanases, A., & Sirikulprasert, N. (2018). Predicting consumer intention to adopt near field communication enabled mobile payment in Thailand. Journal of Telecommunication, Electronic and Computer Engineering, 10(2–7), 147–152.

Saji, T. G., & Paul, D. (2018). Behavioural Intention to the Use of Mobile Banking in Kerala: An Application of Extended Classical Technology Acceptance Model. Metamorphosis: A Journal of Management Research, 17(2), 111–119.

Sekaran, U., & Bougie, R. (2016). Reserach Methods for Bussiness A Skill-Bulding Approach (Seventh Ed). Retrieved from http://lccn.loc.gov/2015051045

Singh, S., & Srivastava, R. K. (2018). Predicting the intention to use mobile banking in India Article information. International Journal of Bank Marketing, 36(2), 357–378.

Sukirno, S. (2010). Makroekonomi: teori pengantar/Sadono Sukirno (2010). Jakarta: Rajawali Pers.

Tan, E., & Lau, J. L. (2016). Behavioural intention to adopt mobile banking among the millennial generation. 17(1). https://doi.org/10.1108/YC-07-2015-00537

Teng, P. K., Ling, T. J., & Seng, K. W. K. (2018). Understanding Customer Intention to Use Mobile Payment Services in Nanjing. China. International Journal of Community Development & Management Studies, 2, 49–60

Teo, A. C., Tan, G. W. H., Ooi, K. B., & Lin, B. (2015). Why consumers adopt mobile payment? A partial least squares structural equation modelling (PLS-SEM) approach. International Journal of Mobile Communications, 13(5), 478.

Tossy, T. (2014). Modelling the adoption of mobile payment system for primary and secondary school student examination fees in developing countries: Tanzanian experience. International Journal of Information Technology and Business Management, 27(1), 1–12. Retrieved from www.jitbm.com

Vincent, F. M., & Sengupta, A. (2019). Factors Affecting the Use of Mobile Payments among Educated Urban Population : An Indian Perspective. International Journal of Innovative Technology and Exploring Engineering (IJITEE), 8(6), 531–537.

Wilson, V., & Mbamba, U. (2017). Acceptance of Mobile Phone Payments Systems in Tanzania: Technology Acceptance Model Approach. Creative Commons Attribution License, 20(2), 15–25.

Wong, W. H., & Mo, W. Y. (2019). A Study of Consumer Intention of Mobile Payment in Hong Kong , Based on Perceived Risk , Perceived Trust , Perceived Security and Technological Acceptance Model. Journal of Advanced Management Science, 7(2), 33–38.

Yan, H., & Pan, K. (2016). Examining mobile payment user adoption from the perspective of trust transfer. International Journal of Networking and Virtual Organisations, 15(2/3), 136.